



# Fact Sheet 1999

## WDO Municipal 3Rs in Ontario

### INTRODUCTION

Ontarians have again increased the amount they reduce, reuse and recycle! Municipalities in 1999 increased tonnage diverted from disposal by 3% compared to 1998 (1.213 million tonnes, up from 1.175 million). This is just the waste diversion due to municipal efforts. In addition, private sector waste service companies also diverted about 693,000 tonnes of industrial, commercial and institutional (IC&I) wastes.<sup>1</sup> This fact sheet focuses primarily on the results of municipal sector 3Rs activity.

The information in this fact sheet was obtained through the 2000 Municipal Waste Diversion Datacall collecting information pertaining to 1999. Responses were received from 200 programs that represent about 99% of Ontario's households served. Results are summarized in the table below, and individual topics are elaborated upon in the following pages.

### Highlights:

- Residential recycling tonnage (curbside and depot), accounting for roughly 54% of all 3Rs tonnage, is up 4%.
- Residential paper recovered increased once again to 492,000 tonnes, up 6% from 1998.
- Access to Household Special Waste (HSW) programs increased by 5%, up to 10.4 million individuals.
- Households with access to municipal recycling programs are up 3%.
- The average household recycled 165 kilograms, up 8% from 153 kilograms in 1996.

### Highlights of Municipal 3Rs Results (data in 000's)

Year	1994	1996	1997	1998	1999	98 to 99 % change
Provincial population	10,800	11,100	11,300	11,400	11,500	1
Provincial households	3,973	4,053	4,119	4,238	4,387	4
Provincial 3Rs tonnage: all activities	804	972	1,082	1,175	1,213	3
Residential recycling: tonnes	454	532	595	631	658	4
Households with curb and/or depot access to recycling	3,145	3,484	3,730	3,850	3,983	3
Municipally collected IC&I recyclables: tonnes	25	30	17	29	27	(7)
IC&I recyclables tipped at municipal MRFs	n/a	n/a	n/a	n/a	29	n/a
Other recyclables: e.g., C&D, whitegoods: tonnes	86	100	79	108	100	(7)
Households provided with compost bins	900	1,000	1,050	1,110	1,120	1
Estimated backyard composting tonnes	90	100	105	111	112	1
Central composting: tonnes	149	210	280	290	281	(3)
Households with curb and/or depot collection of organics*	3,070	3,323	3,560	3,746	3,874	3
Household Special Waste (HSW): tonnes	n/a	n/a	5.82	6.25	6.36	2
Population with HSW access	n/a	n/a	9,800	9,900	10,400	5

\* mostly leaf & yard waste

<sup>1</sup> Statistics Canada, "1996 Waste Management Industry Survey: Business Sector and Government Sectors", October 1999



Ontario  
Ministry of the  
Environment



Recycling Council  
of Ontario



Association of Municipal  
Recycling Coordinators



The voice and resource for municipal  
waste minimization and management



The Composting Council of Canada  
Le Conseil canadien du compostage

## RESIDENTIAL RECYCLING IN ONTARIO

Figure 1 shows that since 1992 there has been a 38% increase in the amount of recyclable materials recovered through municipal curbside and depot recycling programs. Collection of residential household recyclables continues to increase in municipalities throughout Ontario.

Figure 2 illustrates a 3% growth from 1998 to 1999 in the number of households with access to recycling. This growth is similar to the increase in the total provincial household numbers from 1998 to 1999.

Figure 3 shows that the average household recycled 165 kilograms in 1999.

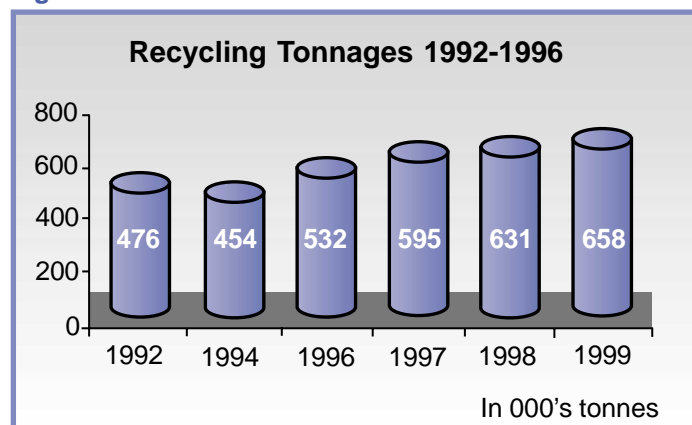
Figure 4 illustrates the quantities of paper, glass, metal and plastic recovered as a percent of total recovery.

**Table 1: Composition of Materials Recycled**

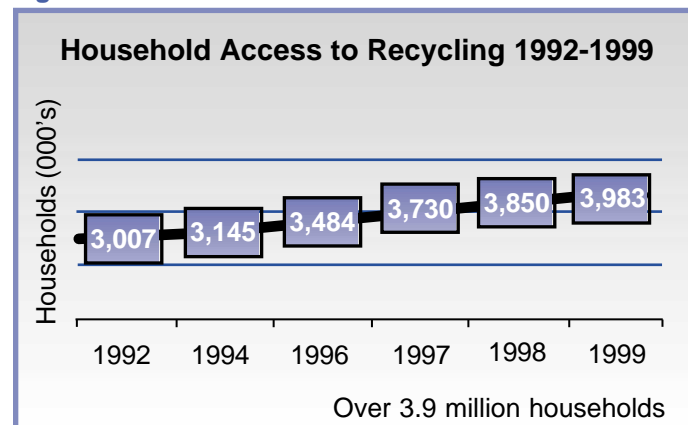
Material	Tonnes (000's)				98 to 99 % change	Kilograms per HHLD			
	1996	1997	1998	1999		1996	1997	1998	1999
Paper	367	429	462	492	6	105	115	120	123
Glass	104	102	100	101	1	30	27	26	25 <sup>1</sup>
Plastic	16	20	22	22.2	1	4.5	5.4	5.7	5.6 <sup>1</sup>
Metal (subtotal):	45	44	47.4	43.3	(9)	13	11.8	12.3	10.9
<i>Aluminum Cans &amp; Foil</i>	10.5	11.0	12.8	11.1	(13)	3	2.9	3.3	2.8
<i>Ferrous Containers</i>	34.7	33.0	34.6	32.2	(7)	10	8.8	9.0	8.1
<b>TOTAL</b>	<b>532</b>	<b>595</b>	<b>631</b>	<b>658</b>	<b>4</b>	<b>153</b>	<b>159</b>	<b>164</b>	<b>165</b>
Households Served (000's)	3,484	3,730	3,850	3,983	3				

<sup>1</sup> Takes into account the increase in numbers of Ontario households served.

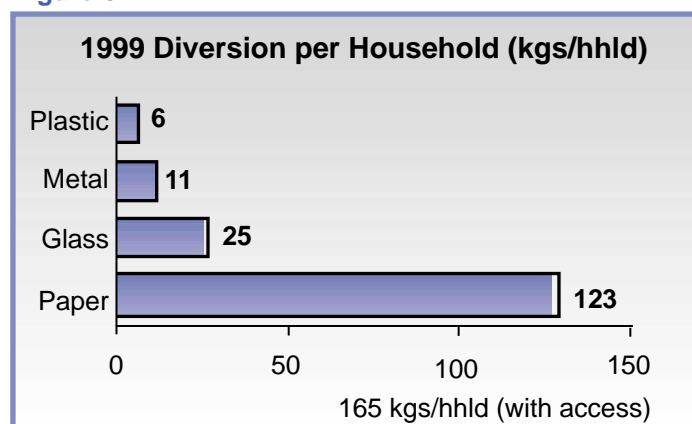
**Figure 1**



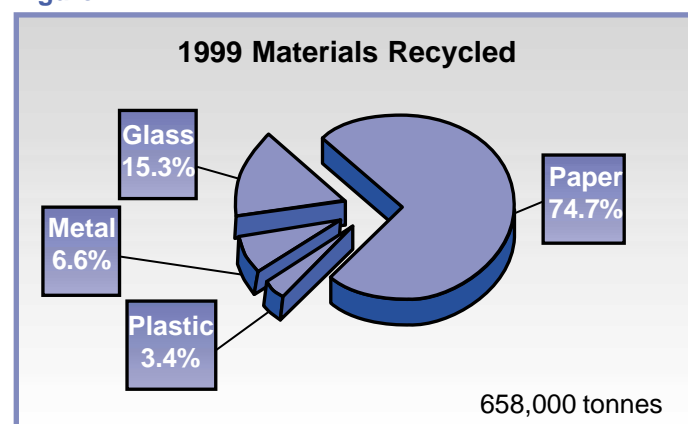
**Figure 2**



**Figure 3**



**Figure 4**



## HOUSEHOLD SPECIAL WASTE

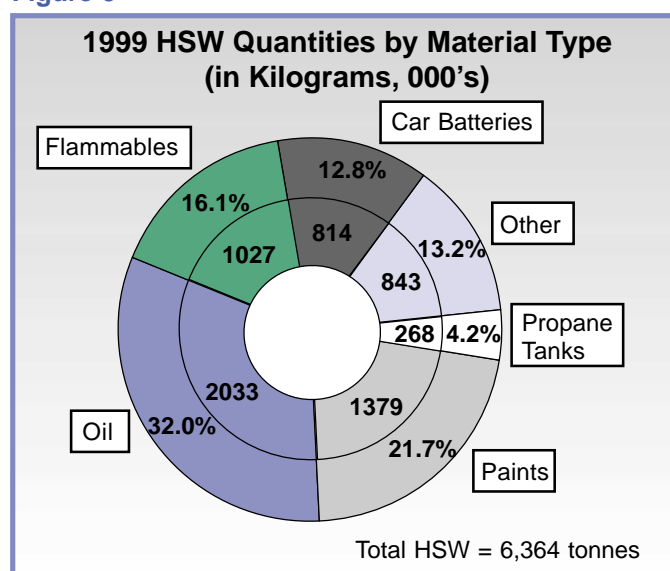
In 1999, 70 household special waste (HSW) programs provided HSW management and disposal services to over 10.38 million people in Ontario. A total of 64 depots and 173 event days were operated in Ontario in 1999. The number of depots and programs have continued to increase since 1997.

An estimated 4.93 million kilograms of liquid HSW and 1.43 million kilograms of solid HSW were diverted from landfills and sewers in 1999. The liquids included acids, antifreeze, bases, flammables, inorganic oxidizers, oil, organic oxidizers, paints, and pesticides. The solids included aerosol cans, car batteries, dry cell batteries, oil filters, pharmaceuticals, propane tanks and cylinders, syringes, and “misc.”. A record of how much HSW was collected in each year between 1997 and 1999 is listed in Table 2.

**Table 2: Overview of Ontario HSW Programs**

Category	1996	1997	1998	1999
Programs	61	54	58	70
Depots	n/a	48	51	64
Events	n/a	152	167	173
People Served (millions)	n/a	9.8	9.9	10.4
Municipalities Served	n/a	almost 300	280	327
Total HSW Diverted (tonnes, 000's)	n/a	5.82	6.25	6.36

**Figure 5**



**Table 3: Types of HSW Programs Offered in 1999 in Ontario**

Type of Program	Total	No. of Programs	Depots per program	Total Depots	Event Days per Program	Total Event Days
Depot Only	28	21	1	21		
		7	2 to 7	26		
Event Days Only	34	23			1	23
		11			2 to 12	45
Combination— Depots & Event Days	8	4	1	4	4 to 7	22
		1	1	1	12	12
		1	1	1	40	40
		1	4	4	3	3
		1	7	7	28	28
Total	70	70		64		173

In 1999, 32 programs reported operating ‘Use-it-up’ areas, an increase from 23 in 1998. Two programs operated toxic taxis which is unchanged from 1998. The number of programs collecting fluorescent lamps more than doubled: 12 programs collected fluorescent lamps in 1999, which is an increase from five in 1998. Only one program charged a user fee of \$1.

Nine programs reported that they participated in the NiCd battery “Charge Up to Recycle” program. This is an increase from six in 1998. Six programs participated by promoting locations which took back NiCd batteries. Three HSW programs reported that they accepted NiCd batteries.

## CENTRAL COMPOSTING ACTIVITY

Centralized composting programs processed 281,000 tonnes of organic material from Ontario municipalities in 1999. This represents a small decrease from the previous year. However, the tonnage was unusually high in 1998 due to excess material resulting from the ice storm in Southeastern Ontario.

The number of municipalities providing this service has dropped by 8%, primarily due to municipal amalgamations. Over 90% of Ontario's households are in municipalities providing this service, a 3% increase from 1998.

Leaf and yard waste materials in addition to grass clippings and Christmas trees constitute the principal sources of organic inputs. Fifteen municipal composting programs also collected approximately 15,500 tonnes of food materials at curbside (6% of the total inputted material).

Twenty-two programs reported that in-house staff are responsible for compost product sales and marketing, while 11 municipal programs reported utilizing an outside broker for compost distribution and sales. Three municipal programs are directly producing custom blends of finished compost products.

Residential use is the primary means of compost demand followed by topsoil blenders, municipal public works departments, landscapers, garden centres and landfill cover. Uses in agriculture, land reclamation and in the greenhouse industry continue to represent an opportunity.

**Table 4: Changes in Composting Activity**

Year	1994	1996	1997	1998	1999	% Change
No. of programs	30	32	67	74	77	4
No. of municipalities	152	150	241	235	217 <sup>1</sup>	(8)
Households w/access to service (000's)	3,070	3,323	3,560	3,746	3,874	3
Tonnes processed (000's)	149	219	280	290 <sup>2</sup>	281 <sup>3</sup>	(3)

<sup>1</sup> Result of municipal amalgamations.

<sup>2</sup> Unusually high tonnage reflects material resulting from 1998 ice storm.

<sup>3</sup> There are 13 small programs which did not report tonnes. These programs represent approximately 70,000 households with access to central composting. Twenty-three thousand tonnes have been estimated for these programs and included in the total of 281,000 tonnes.

## BACKYARD COMPOSTING ACTIVITY

The number of compost bins distributed by Ontario municipalities to date is 1.12 million. Based on municipal composting participation studies, it is estimated that residential participation rates continue to remain high (half the studies reported an ongoing participation rate of 75% or greater).

**Table 5: Backyard Composting Participation and Results**

Year	1994	1996	1997	1998	1999	% change
No. of municipalities providing units	449	481	427	419	393	(6)
Percent of provincial population in these municipalities	96	98	97	98	98	0
Households provided with compost bins (000's)	900	1,000	1,050	1,110	1,120	1
Kilograms per unit diverted*	100	100	100	100	100	n/a
Approximate tonnes diverted (000's)	90	100	105	111	112	1

\*Estimated to 100 kilograms per unit to more accurately reflect tonnage diverted from this activity.

## MUNICIPAL RECYCLING INFRASTRUCTURE

Table 6 shows material recovery rates for municipal recycling programs in Ontario.

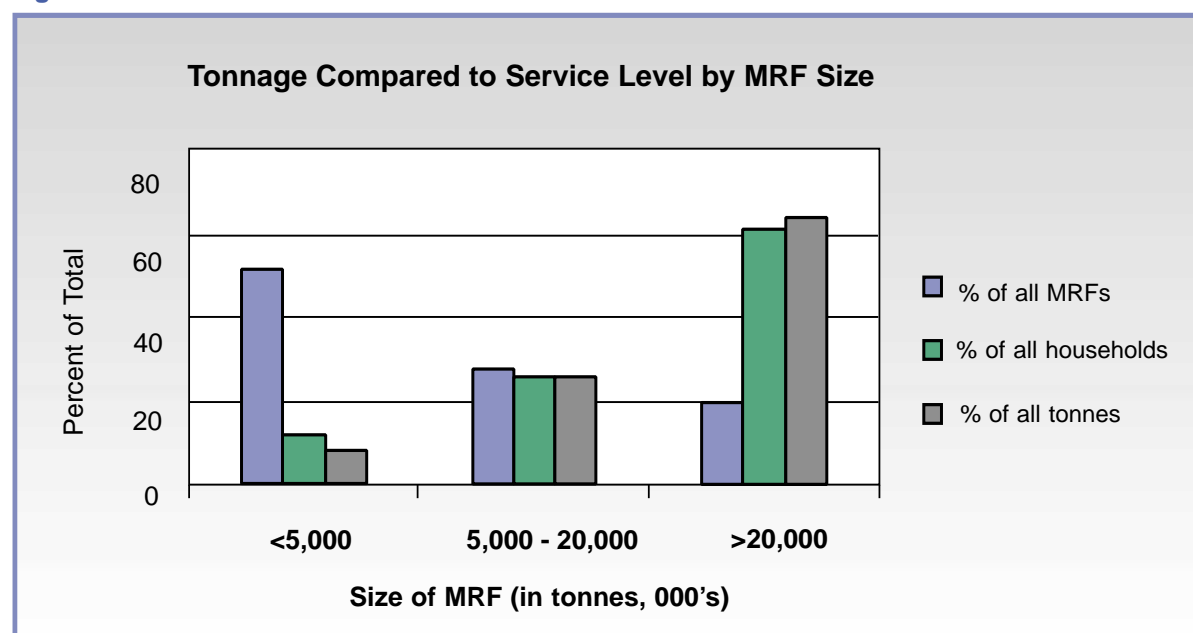
**Table 6: Typical Program Recovery Rates**

Program Type	% of Households with access to recycling	Kilograms per Household				Total
		Paper	Glass	Metal	Plastic	
Curbside	77	126	25	10.1	5.1	166
Depot	3	44	14	8.0	4.0	70
Curbside & Depot	20	130	28	14.4	7.6	180
Total	100	123	25	10.9	5.6	164

- 45% of recycling programs offer curbside collection, representing 77% of all households with access to recycling.
- 3% of all households recycle through a depot program, which accounts for 31% of recycling programs in Ontario.
- Residential curbside programs recover 96 kgs/hhld more than depot programs, and 14 kgs/hhld less than a combined curbside and depot program.

Figure 6 categorizes *material recovery facilities* (MRF's) by the annual municipal tonnage handled. Most of these facilities sort and bale recyclable materials and ship them to markets. Some of the small sites sort but do not bale. Some sites handle material from IC&I sources exclusively, and these sites are excluded from this analysis.

**Figure 6**



- 61 MRFs in Ontario received recyclables from municipal collectors in 1999, up from 59 in 1997.
- 52% (54% in 1998) of the MRFs each handled less than 5,000 tonnes per year and served 12% of the households (15% in 1998).
- 28% (19% in 1998) each handled 5,000 to 20,000 tonnes per year served 26% of households (19% in 1998).
- 20% (27% in 1998) each handled more than 20,000 tonnes per year served 62% of households (66% in 1998).

## DATA COLLECTION METHODOLOGY

This report is the product of a partnership of seven organizations: the Waste Diversion Organization (WDO), Ministry of the Environment's Waste Management Policy Branch (MOE), CSR: Corporations Supporting Recycling (CSR), Recycling Council of Ontario (RCO), the Association of Municipal Recycling Coordinators (AMRC), the Municipal Waste Integration Network (MWIN) and the Composting Council of Canada (CCC). For the first time, the 1999 datacall also incorporated the WDO-Recyclable Beverage Alcohol Containers (RBAC) Funding Program Survey (formerly referred to as LCBO funding) and the Household Special Waste (HSW) Survey (formerly called household hazardous waste). The partners generated and distributed the datacall, validated the returned data, developed estimates covering the municipalities that did not report quantities, and produced the fact sheet. The partnership approach relieves municipal waste management professionals from responding to five or six similar annual surveys, and avoids publication of contradictory reports. This is the third update of the partnership's original fact sheet published in October 1997 regarding 1994 and 1996 activities.

The Municipal 3Rs Datacall form was used to collect information from 219 known municipal 3Rs programs serving 473 municipalities across Ontario. Datacall responses were received from 200 programs, representing about 99% of Ontario's households served. Tonnages have been estimated for the 19 non-responding programs by making an estimate based on the performance of similar programs.

The datacall responses have been checked for inconsistencies with respect to topics covered in this fact sheet. Checking will continue as analyses proceed. Respondents are contacted for clarification when inconsistencies appear.

The partners wish to thank all municipal staff who participated in this datacall and whose contributions are the key ingredients in this fact sheet; i.e., the facts themselves. The partners look forward to continuing to share summarized information and

analyses, and to expanding it through follow-up and subsequent datacalls.

### **INFORMATION SOURCES:**

1999: 3Rs Information Partnership 2000 data survey  
1998: 3Rs Information Partnership 1999 data survey, and AMRC's survey of HSW programs  
1997: 3Rs Information Partnership 1998 data survey, and AMRC's more detailed survey of HSW programs  
1996: 3Rs Information Partnership 1997 data survey  
1994: MOE Highlights - 1994 Waste Diversion by Ontario Municipalities  
1992: OMMRI Overview of 1992 published in April 1993  
Populations: Statistics Canada, CANSIM, Matrices 6367-6378 and 6408-6409  
Households: Ontario Municipal Directory (electronic version); Association of Municipal Clerks & Treasurers

### **ACKNOWLEDGMENTS:**

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### **DISCLAIMER:**

The information contained in this report is derived from data submitted by survey respondents. The partners cannot and do not make any representation as to the accuracy of the data provided by survey respondents.

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